Shellfish Connections

A Newsletter
from
The Office of Food Safety & Shellfish Programs

January 2003

In This Issue...

Inserts:
HACCP Training Registration

Also
Pac Rim Registration
Pac Rim Agenda

GROWING AREA NEWS

Growth in Cooperative Water Sampling

Each year, about 12,000 marine water samples are collected to classify and maintain the classifications of Washington's shellfish growing waters. Boat crews of two collect these water samples.

Before 1994, the Department of Health staff collected virtually 100% of the marine water samples. In 1994, Health and the Tribes began to implement a cooperative, intergovernmental shellfish sanitation program and the Tribes began collecting water samples with Health and on their own.

By 1996, Health crews still collected the majority of samples, but someone outside of Health was involved in about 33 percent of the samples collected. Most of the time, the involved non-DOH sampler was from one of the Tribes.

Since 1996, Health has encouraged local health departments and the Department of Natural Resources to assist in water sample collection. In addition, Health has allowed non-Tribal commercial shellfish growers to collect some samples. These efforts paid dividends and by 2002, someone outside of Health was involved in about 72 percent of the samples collected.

These partnerships have allowed Health to reduce its involvement in water sampling from about 55 staff-days per month in 1996 to about 32 staff-days per month in 2002. During the same period, water quality monitoring expanded to include the Straits, the west side of the main channel of Puget Sound from Maury Island to Point No Point, Possession Sound, and other areas. However, the biggest payoff of the cooperative water sampling program is the network of relationships that has been built. This has improved communication, understanding of the shellfish sanitation program, and public health protection.

For more information on our cooperative water sampling program, contact Bob Woolrich at (360) 236-3329.

Early Warning System

The goal of the Early Warning System (EWS) is to prevent shellfish downgrades by providing early warning about problems that may affect a growing area's classification. Its aim is to stimulate local actions that will identify and correct sanitation issues. Restoring downgraded shellfish areas has proven to be a long and difficult process. Early actions that prevent a downgrade are insurance for the future.

To accomplish this, each year the office evaluates all of the state's shellfish growing areas to detect problems with water quality or other sanitation issues. Growing areas with notable problems are categorized as either *threatened with a downgrade*, or *passing but with some concerns*. These growing areas are published on the agency's *threatened* and *concerned* lists. These lists are distributed to a variety of stakeholders including the industry, local government, conservation districts, tribal governments, and other state agencies.

Over time we have worked to improve this system by working with stakeholders to develop guidelines that use a variety of evaluation methods. Our current guidelines are summarized in the table on the following page. When any one of the conditions in the table is met, the area's status may be listed as threatened or concerned.

GROWING AREA NEWS (*continued*)

(Early Warning System, continued)

Analysis	Concerned Status	Threatened Status
NSSP 90th Percentile	Between 20 and 30	Between 30 and 43
Increasing Trend in 90th	90th between 10 and 20	90th between 20 and 30
Growing Area Classification		Conditionally Approved – Managed by rainfall
Shoreline Survey	Potential sources identified	

Our next EWS notification should be completed by March or April of 2003. Currently, industry members are directly notified if they have a harvest site anywhere in a threatened growing area or if their harvest site is near the area of concern. There are still some unresolved issues, and industry participation and input on the EWS is welcome. Please contact Wayne Clifford at (360) 236-3307 or email at wayne.clifford@doh.wa.gov for more information.

PSAMP Reports Available in March

The Washington State Department of Health is a participating agency of the Puget Sound Ambient Monitoring Program (PSAMP), which is coordinated by the Puget Sound Water Quality Action Team. The extensive water quality and biotoxin data collected by DOH over many years to protect the health of shellfish consumers does "double duty" by helping PSAMP assess the health of Puget Sound.

DOH has just published its annual PSP report for PSAMP entitled *Paralytic Shellfish Poisoning (PSP) Patterns in Puget Sound Shellfish in 2001*. The report highlights PSP activity at 31 Sentinel Mussel stations. Twenty-four of the 31 Sentinel sites had measurable PSP impact and were ranked. PSP activity was generally lower in 2001 compared to 2000 in the Strait of Juan de Fuca and Georgia Strait, but higher in the Main Basin and south Puget Sound. Most of Hood Canal remained unaffected by PSP.

Another PSAMP report, *Atlas of Fecal Coliform Pollution in Puget Sound: Year 2001*, is near completion and will be available by March 2003. Water sampling data was used to determine fecal pollution status in 95 growing areas in Puget Sound. The report identifies 31 growing areas that have suffered significant fecal pollution impact in recent years, and ranks and describes these areas in detail.

If you would like copies of these reports, please contact Tim Determan at (360) 236-3311 or email tim.determan@doh.wa.gov.

STAFF CHANGES

In October 2002, Mary McCullough began working with us as an office assistant through a contract between Department of Health and the Washington State Work Study Program. Mary is a student at South Puget Sound Community College and works for FSSP part-time, helping us with administrative duties. Welcome Mary!

Judy Dowell, who was the manager of our licensing and certification section, left the Department in October. Judy was a dedicated and energetic member of our team, and made a number of improvements in the licensing section during her time here. Judy plans to spend time with her husband and family, and travel the country in her newly acquired motor home. Good bye & good luck Judy. You'll be missed!

INSPECTORS' CORNER

Enforcement Update

Recent license actions and civil penalties (these items will be updated as they proceed)

Northern Oyster Company, Inc., *owner Richard Sheldon.*

Notice of Intent to charge civil penalties in the amount of $4,600 was mailed on June 25, 2001. Alleged violations included operation without certification, failure to maintain adequate records, and misrepresentation as to nature of shellfish operation. An administrative hearing was held regarding this matter and the civil penalty assessment was reversed by the Health Law Judge. The Judge upheld the Shellfish Program's position that a penalty could be assessed for the alleged violations, although he concluded, based on the particular facts of the case, that Northern was not in violation of the cited requirements. The Judge's ruling stressed that, under the circumstances, a Notice of Correction or an order regarding the deficiencies should have been issued before the penalties were assessed.

Transporting Shellstock

When transporting shellstock, you must protect it from road and other contaminants. This can be accomplished by transporting shellstock in clean trucks that have an enclosed bed such as a canopy, or by covering the shellstock with a clean tarp.

Changing Facility Location?

If your facility moves to a different location, DOH is required to inspect the new facility *before operations begin*. To help prevent lost operation time, let your inspector know as soon as possible if you are planning to move facility locations, and submit this information to us in writing. Once your new facility has been inspected and approved, a revised shellfish operation license will be issued to your company listing the new location.

HACCP Class Held

The Department held a shellfish HACCP training class on October 29 & 30, 2002 at its office in Kent. Attendees participated in a one and one-half day training to satisfy the requirement of NSSP Model Ordinance Chapter X.01.I, Training. The instruction received during this training class qualifies the attendees to conduct a Process Flow Chart, Hazard Analysis, and a HACCP Plan. Attention to FDA rules, hazards, associated records for SSOP/GMP, and other record keeping requirements were presented. The attendees were as follows:

Company Represented	Individual
Bar Harbor Clam Co. LLC	Sebastian Santelices
Carl Johnson Clams & Oysters Inc.	Darlene Good
Further Diving Inc.	Mark Pearce
Judd Cove Shellfish	Charleen Bawden
Kemmer Oyster Co. Inc.	R. Brian Kemmer
Lytle Seafoods	Michael C. Lytle
Merino's Seafood LLC	Rose Donovick
Nisbet Oyster Co. Inc.	Tony Morris
Suquamish Seafoods	Terrance Ruthburn
Suquamish Seafoods	Gloria Santos
Toebbe's Clam Farm Inc.	Damon Stricklett
Toebbe's Clam Farm Inc.	Carrie Toebbe
Wallin's Oysters & Clams LLC	Mary Bennett
Willapa Bay Shellfish Inc.	Warren Cowell

INSPECTORS' CORNER (*continued*)

Record Keeping & Recalls

Product recalls are no fun for anyone. Good record keeping, however, can make the recall process less cumbersome and time-consuming, and can help to get recalled product off the market quickly.

Product must be easily traced back to its origin in the event of a recall. Complete, accurate, and legible records are essential to this process. It is also important to be consistent in recording information on both shellfish tags and transaction records.

Tags

The harvest site information listed on your tags should match the information found on your Harvest Site Certificate (HSC).

Your HSC not only lists all certified sites from which your company can harvest, it also lists important identifying information for each site. This includes, in part, the NSSP growing area name, the site identifier (such as parcel, tract, or bed number), and legal owner.

Please make sure the *NSSP growing area name* and the *parcel, tract, bed number,* or *legal owner* is included in the information listed on your tags, and carry this over to your transaction records.

Transaction Records

WAC 246-282-080(4) states "The owner or person in charge of a shellfish operation must keep accurate records of all lots of shellfish harvested, received, wet stored, shucked, packed, shipped or sold by the shellfish operation for a minimum of three years." Transaction records must include:

- NSSP growing area and site identifier (as listed on the Harvest Site Certificate and harvest tag)
- harvest, purchase, or sale date
- lot number
- species of shellfish
- quantity of product harvested, purchased or sold
- name and certification number of the company the product was purchased from, or sold to

Our office has samples of transaction record forms available for you to copy and use. If you have any questions on record keeping requirements, or would like some sample forms, please contact your inspector.

New Licensing & Certification Manager

Jessie DeLoach has been selected as the new manager for the Licensing and Certification Section effective November 1, 2002. He replaces Dr. Judy Dowell, who left the department in October (see related article on page7). Jessie has been the section's lead inspector and the primary State Standardization Officer (SSO) since March 2000, and brings a wealth of knowledge and ability to his new role as manager for the Licensing and Certification Section.

Jessie will continue to serve as both manager and primary SSO until a replacement is hired to fill his old position. Jessie's inspection responsibilities have been assigned to other inspectors, and companies affected by this change will be notified as to who their new inspector will be. Congratulations, Jessie, on your new role!

Alternate SSO Selected

Cathy Barker has been selected to serve as the Alternate State Standardization Officer (SSO) for the Shellfish Program. Cathy has been a State Standardized Inspector (SSI) since September 1999 and has extensive knowledge in the Shellfish Program with both sanitary survey and sanitation requirements. Her new role will be to assist the Department's primary SSO in assuring compliance to the NSSP requirements. Cathy will be attending the FDA SSO training in February 2003, followed by FDA field standardization by the Regional FDA Shellfish Specialist during the next annual Program Audit. Join us in congratulating Cathy in her new role.

HACCP Training Class Planned

The next Industry HACCP training class is scheduled for May 1 & 2, 2003, in Building 6 at DOH's office complex in Tumwater. If you are interested in attending, please complete the registration form enclosed with this newsletter. Advanced registration is required.

Each SS and SP company is required to have a trained HACCP coordinator to oversee the HACCP monitoring requirements in effect within their operations. For more information, contact Cathy Barker at 360-236-3303 or email cathy.barker@doh.wa.gov.

BIOTOXIN UPDATE

Domoic Acid

Third Quarter 2002

Razor clam samples continued to register low readings for domoic acid in most of the third quarter. Plankton monitoring, which revealed low levels of *Pseudo-nitzschia* cells in the water, supported the low clam results. However, during the last part of September, plankton monitoring revealed a sudden increase in *Pseudo-nitzschia* cell counts, which was followed by elevated toxin levels in razor clams. The toxin levels in Kalaloch, Copalis and Mocrocks were all above 20 ppm. These results prevented the opening of the razor clam season in the first week of October for these beaches. At the same time, Twin Harbors and Long Beach tested 16 ppm for domoic acid, which was an eight-fold increase in one week. Because of the fast rise in toxin, the season opening was postponed for these two beaches as well, even though the standard of 20 ppm had not been reached. Sampling of these two beaches a week later, during the time when they would have been open, revealed test results of 60 ppm at Twin Harbors and 38 ppm at Long Beach, both well above the standard of 20 ppm.

Fourth Quarter 2002

The upward trend in razor clam toxicity that began in September continued and peaked in October. The highest result, 188 ppm, was recorded at Mocrocks in the fourth week of October. In the same week, Copalis peaked with a result of 185 ppm, Long Beach had 132 ppm and Twin Harbors topped out at 113 ppm. Kalaloch peaked in the first week in November at 150 ppm. Almost immediately after the peaks in October and early November, plankton sampling revealed a dramatic decrease in *Pseudo-nitzschia* cell counts, and razor clam toxicity levels began to drop. By years' end, Mocrocks had dropped from 188 ppm to 91 ppm, Copalis from 185 ppm to 102 ppm, Long Beach from 132 ppm to 81 ppm, Twin Harbors from 113 ppm to 44 ppm, and Kalaloch from 150 ppm to 115 ppm. If this trend continues, a spring razor clam season may be possible on at least some of the coastal beaches.

The elevated toxin levels in razor clams also had a significant impact on Dungeness crab. In early October, preseason crab samples had low (single digit) domoic acid test results. However, as clam samples gained in toxicity, so did crab samples. Crab monitoring was increased from monthly to weekly, and by mid-November, crab samples (crab viscera are tested for domoic acid) were producing test results between 20 ppm to 40 ppm, with a few over 40 and one at 52 ppm. Three individual crab in a set of six testing at 30 ppm or higher would close the crab season or at best require all crab to be eviscerated before being sold. Fortunately, domoic acid remains almost entirely in the viscera, with very little transferring to the meat. The most toxin recorded in crabmeat was 4 ppm, well below the FDA standard of 20ppm.

PSP

Third Quarter 2002

The lack of PSP activity was the most notable feature for most of the third quarter of 2002. There were no major commercial area closures in this quarter, however, there were ten commercial geoduck tract closures. Some of the tract closures were without the typical accompanying intertidal PSP activity that is usually seen in the summer months.

A number of recreational closures occurred due to elevated blue mussel test results. These blooms were generally very brief in duration and did not have much of an effect on other shellfish species. In late July, Mystery Bay was closed. In early August, Carr Inlet, and parts of the Tacoma Narrows. In late August, Dyes Inlet closed.

At the first of September, Quartermaster Harbor, west Strait of Juan de Fuca, Point No Point to Agate Pass in Kitsap County, and Discovery Bay in Jefferson County experienced closures. However, the second week of September was just the opposite of the first week, with numerous areas reopening. All of Pierce County and parts of King, Kitsap, and Jefferson Counties reopened. At the start of the third week, PSP activity again increased causing closures in the Agate Pass area, King County, and Clallam County. The third week ended with additional closures in Pierce County, west Bainbridge Island and Kitsap County, Skagit County, and Jefferson County. The last week in September continued this trend with a closure in Jefferson County.

Fourth Quarter 2002

The mild, dry weather continued in October and November, and provided the opportunity for strong PSP blooms in a

BIOTOXIN UPDATE (*continued*)

number of areas. There were nine geoduck tract closures and seven major commercial shellfish area closures in the last quarter of 2002. Six of the seven commercial closures were in the north part of the state. In the second week in October, PSP blooms closed Portage Bay in Bellingham Bay in Whatcom County and Samish Bay in Skagit County. Portage peaked at 192 micrograms in blue mussels, while Bellingham Bay proper reached 1,422 micrograms. Pacific oysters in Samish Bay peaked at 427 micrograms. The last four northern closures, bordering on the Olympic Peninsula, occurred in the third week in October. They were Sequim Bay in Clallam County, and Discovery Bay, Mystery Bay and Kilisut Harbor in Jefferson County. Blue mussels peaked at 822 micrograms in Sequim Bay and 887 micrograms in Discovery Bay. By the first week in November, Mystery had reached 20,751 micrograms, which was the second most toxic PSP bloom in Washington's history, only surpassed by the Island County bloom of 1978, which exceeded 30,000 micrograms of PSP toxin. In the third week of November, Scow Bay in south Kilisut Harbor peaked at 8,391 micrograms, which set a new PSP toxin record for Scow Bay.

The last commercial closure for 2002, affecting parts of Mason and Pierce Counties, occurred in November in Case Inlet. The bloom began in October, but did not officially close the inlet until the first week of November. By the third week of November, at the height of the bloom, mussels peaked at 1773 micrograms at Allyn, 1060 micrograms at Stretch Island, and geoducks peaked at 1001 micrograms at Stretch Island.

Recreational closures followed the commercial closure trends in the fourth quarter of 2002. They began in October, with closures in the north. Kilisut Harbor and Mystery Bay in Jefferson County, all of Whatcom County, Samish Bay in Skagit County and parts of Lopez and San Juan Islands in San Juan County closed in the first half of October. An unusual bloom occurred in north Hood Canal, which was very localized at Lofall, and closed part of Kitsap County from the Hood Canal Bridge to Vinland. In the last half of October, North Case Inlet closed while Dyes Inlet reopened.

In November, recreational area closures included all of Case Inlet, Pickering Passage, Nisqually Reach, Pitt Passage, Filucy Bay, and Dalco Passage from Commencement Bay to the Tacoma Narrows Bridge. In late November, North Willapa Bay was closed for recreational harvest of all species. The blooms began to subside in November, and numerous areas reopened to recreational shellfishing. Closures in the Strait of Juan de Fuca, King County, Jefferson County, Kitsap County, San Juan County and Skagit County were lifted. By December, the blooms had come to a stop and areas continued to reopen for most or all species. They included all Whatcom County, Willapa Bay, Nisqually Reach, Discovery Bay, Agate Pass, and East Bainbridge Island.

Even though the algal blooms were over, shellfish in Sequim Bay, Kilisut Harbor, Mystery Bay, and Case Inlet continued to contain high levels of PSP toxin at years end.

OTHER NEWS

Pac Rim Conference Dates Set

Mark your calendars! The 2003 Pac Rim Conference is scheduled for April 1 & 2 at the Dolce Skamania Lodge in Stevenson, Wa. The agenda and registration form are included with this newsletter.

Do You Want to Ship Live Oysters to Japan?

In December of 1996, the Japanese government approved the export of live oysters from Washington to Japan. Prior to granting approval, the Japan Ministry of Health and Welfare conducted an extensive review of our shellfish program, visited growing areas in the state, and required DOH to conduct additional water quality testing. The Japanese government requires a growing area to meet the *total coliform* standard instead of the fecal coliform standard that we currently use.

Because of the additional water quality requirement, each harvest site has to be tested before exports can begin and at least once a year after that. As a result, we can only issue export certifications for live oysters to companies that have met the testing requirement. If you are interested in shipping live oysters to Japan, please contact Jessie DeLoach at (360) 236-3302 or email jessie.deloach@doh.wa.gov to learn more about the approval process.

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